# WCPSS MVP Policy Violation Attachment

## Summary

This attachment, which is accompanied by a cover letter from a parent on behalf of their child, details violations related to the decision to use Mathematics Vision Project (MVP)[1] materials and methods to instruct children in WCPSS math classes.

This decision violates the North Carolina Constitutional right to a sound, basic education pursuant to *Leandro I,* and WCPSS Board Policies 3200, 3135, and 3125.

## VIOLATION 1

The use of MVP materials and methodology[2] fails to provide students with a sound math education based upon the definition[3] of a sound education provided by the NC Court in regards to the ***Leandro*** case.

"The Court defined a sound basic education as one that will provide students with each of the following abilities, skills, and areas of knowledge:

(1) Sufficient ability to read, write, and speak the English language and a **sufficient knowledge** of **fundamental mathematics** and physical science to enable the student to function in a complex and rapidly changing society;

---

[1] MVP is a discovery-based teaching curriculum and methodology introduced into WCPSS beginning with the 2017-2018 (Math 1) and 2018-2019 (Math 2 and 3) school years. Per MVP, "The MVP classroom experience begins by confronting students with an engaging problem and then allows them to grapple with solving it. As students' ideas emerge, take form, and are shared, the teacher orchestrates the student discussions and explorations towards a focused mathematical goal. As conjectures are made and explored, they evolve into mathematical concepts that the community of learners begins to embrace as effective strategies for analyzing and solving problems."
http://www.mathematicsvisionproject.org/uploads/1/1/6/3/11636986/wash_jan2013_ppt.pptx

[2] Although the MVP methodology is actually incorporated into the instructional materials (workbook and facilitator guides), this document will frequently refer to both materials and methodology to draw attention to the fact that they are inseparable.

[3] *Leandro v. State,* 345 N.C. 336, 347 (1997).

(2) Sufficient fundamental knowledge of geography, history, and basic economic and political systems to enable the student to make informed choices with regard to issues that affect the student personally or affect the student's community, state, and nation;

(3) **Sufficient academic** and vocational skills to enable the student to successfully engage in **post-secondary education** or vocational training;
And

(4) **Sufficient academic** and vocational skills to enable the student to **compete** on an **equal basis** with others in further formal education or gainful employment in contemporary society." *Leandro at 347.*

## VIOLATION 2

The selection of the MVP material and methodology *violates* **WCPSS Board Policy 3200** in multiple areas:

**Policy 3200** states, "Instructional materials should also be appropriate for the *maturity levels* and *abilities of the students*, and *address a spectrum of learning styles*." (emphasis added)

According to MVP, "In the MVP classroom the teacher launches a rich task and then through 'teacher moves' encourages students to explore, question, ponder, discuss their ideas and listen to the ideas of their classmates."[4]

This methodology relies heavily on teacher facilitation as a primary - and sometimes exclusive - teaching method, resulting in students' math education being **intentionally obscured** as students grapple with trying to discover the math in work groups. MVP uses an inquiry-based approach in which students are exposed to real-world problems with the expectation that helps them develop fluency in number sense, reasoning, and problem-solving skills. This is in place of time-tested practices that hold that children must first develop computational skills before they can understand concepts of mathematics.

[4] https://www.mathematicsvisionproject.org/for-educators.html (last viewed 4/6/19)

**Time-tested practices of establishing and solidifying math fundamentals** by providing examples, definitions and properties, procedures and models, and having students replicate, drill, practice, and memorize are **not only reduced or delayed, they are shunned**. (See Exhibit A: MVP Math Education Transformation) . The result is a student who sits under a teacher who follows MVP in a manner "true to the curriculum" is not being provided a **sound math education**.

While MVP proponents cite research from the National Council of Teachers of Mathematics,[5] the research fails to cite proof that this works for all students. In fact, there is very limited independent evaluation available for MVP.

## *EdReports*

One evaluation, from the *EdReports* Review[6] [7] reports several deficiencies with MVP. Per EdReports, "Alignment and usability ratings are assigned based on how materials score on a series of criteria and indicators with reviewers providing supporting evidence to determine and substantiate each point awarded."[8]

Per *EdReports*:

In the **CRITERION** for "Differentiated instruction: Materials support teachers in differentiating instruction for diverse learners within and across grades," MVP failed to meet expectation. These were the relevant INDICATORS contributing to the failure.

- **INDICATOR 3R-MVP Earned 1/2** - Materials provide teachers with strategies to help sequence or scaffold lessons so that the content is accessible to all learners.

[5] https://www.nctm.org/principlestoactions/ (last viewed 4/6/19)
[6] https://edreports.org/reports/detail/mathematics-vision-project-mvp-integrated-2016-hs (last viewed 4/8/19)
[7] EdReports.org is an independent nonprofit designed to improve K-12 education. EdReports.org increases the capacity of teachers, administrators, and leaders to seek, identify, and demand the highest quality instructional materials. Drawing upon expert educators, our reviews of instructional materials and support of smart adoption processes equip teachers with excellent materials nationwide.
[8] https://edreports.org/modal/rating-scale (last viewed 4/8/19)

- **INDICATOR 3S-MVP Earned 1/2** - Materials provide teachers with strategies for meeting the needs of a range of learners.

- **INDICATOR 3T MVP Earned 1/2** - Materials embed tasks with multiple entry-points that can be solved using a variety of solution strategies or representations.

- **INDICATOR 3U-MVP Earned 0/2** - Materials provide support, accommodations, and modifications for English Language Learners and other special populations that will support their regular and active participation in learning mathematics (e.g., modifying vocabulary words within word problems).

## Washington State Office of Superintendent of Public Instruction

MVP itself cites no product success evidence on its website, after being in business since 2013.

What MVP does provide on its website are reviews[9] performed in 2013 performed by Washington State's Office of Superintendent of Public Instruction. The selected bar graphs include ratings of only 5 individuals asked to evaluate various math curricula. For these 5 reviewers, the reference shows MVP faring well versus other programs but fail to include the write-in comments which essentially negate the high rating. The strongest advocate (Strongly Agreed) include the following comments, "Much is required from the teacher to ensure that the attention to focus, coherence, and rigor result in achievement. There is much expected of the learner as well. The learner must internalize and exhibit many of the mathematical practices in order to productively engage in the work. Additionally, the course assumes that students enter the course with necessary prerequisite understanding and skills. Direction is given to teachers throughout the course to support students with conceptual deficits but aside from the first few units (modules) there are few supports provided students with procedural deficits…Led by a proficient teacher, and with additional assessments and practice

[9] https://www.mathematicsvisionproject.org/mvp-materials-review.html (last viewed 4/8/19)

exercises, this course could be outstanding. In its current state, in the hands of a basic teacher, it could flop."[10]

Additionally, on 2 other charts "Quality of Explanation of Subject Matter" and "Quality of Technological Interactivity," MVP was rated lowest - Very Weak and None, respectively. In Wake County, we believe that the quality of explanation of subject matter has been a significant contributor to the problems experienced by students.

### Bloom's Taxonomy

Lastly, the facilitative teaching and discovery learning approach, as applied in a math subject, is contrary to basic Bloom's Taxonomy foundational principles. (See Exhibit B - Bloom's Taxonomy)

Bloom's Taxonomy "is hierarchical, meaning that learning at the *higher* levels is ***dependent*** on having attained ***prerequisite knowledge*** and ***skills*** at *lower* levels."[11] MVP flips Bloom's Taxonomy on its head because it only caters to students who can teach themselves and be successful.

### Teacher Testimonies

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP does not support different learning styles and abilities.**

## VIOLATION 3

[10] See Open Educational Resources Instructional Material Review Secondary One Mathematics: An Integrated Approach https://drive.google.com/open?id=1IN197L5dOwfa8q_P0qO1CL5LwsK21_3v
[11] https://tips.uark.edu/using-blooms-taxonomy/ (last viewed 4/6/19)

The use of MVP materials and methodologies violates **Section C**, **Policy 3200**: “b) the material’s reliability, including the extent to which it is accurate, authentic, engaging, relevant, comprehensive and evidence-based;”

Based on feedback compiled using an informal parent-initiated survey of math tutors and certified math teachers conducted during March 2019 (See EXHIBIT C - MVP Errors and Evaluation), the MVP materials contain mathematical ***errors (inaccurate material)*** and ***gaps (incomprehensive)***, which gives students false information and leaves them struggling to understand key fundamental math concepts. Please note that errors in Exhibit C only speak to 3 of 28 workbooks currently in print across WCPSS.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP material is not reliable.**

Furthermore, MVP materials and methodologies are causing a large number of students to *no longer* ***engage*** in math; in fact, it has lead to many loathing math and changing their high school math path. An analysis of trends in math course registrations (including academic vs. honors, AFM vs. Pre-Calc, etc.) will demonstrate this point.

For example, there are students currently in Math 2 Honors that plan to take Math 3 Academic next year and then Discrete Math versus staying in honors next year and pursuing Precalculus.

## VIOLATION 4

The use of MVP materials and methodologies violates **Section C**, **Policy 3200**: "e) the material’s provision of thoughtful supports and scaffolds to support all students in accessing the North Carolina standards;”

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math

Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP does not support students' scaffolding.**

All MVP materials used in class ***fail*** to provide any supports or scaffolds. Please see above *EdReport* indicators that MVP fails to meet.

## VIOLATION 5

The use of MVP materials and methodologies violates **Section C**, **Policy 3200**,: "g) the supports provided for effective and sustainable implementation;"

MVP materials and methods, including student workbooks, facilitator guides, teacher re-education, and any online resources, are not proving their effectiveness. Sustainability is irrelevant if the materials and methods are not first effective. Schools recommend outside resources such as SMART Lunch, Canvas, YouTube videos, Khan Academy, Purple Math, after school Math Tutoring Center, and optional private tutoring for parents of means, to shore up learning gaps experienced by students.

Yet, the results of all those extra after school efforts, COMBINED with the in-class MVP materials and methods experience, is resulting in students performing so poorly that many have received their ***lowest*** grades **ever** in MVP math classes versus any other math class they have taken before. Grades are indicative of learning, retention, and understanding, and effectiveness of materials and methodologies used by the teacher.

Even after spending over $567,000 on professional development for teachers, sending central office staff to observe classes and provide feedback to WCPSS, students are still not receiving a sound math education.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP is not effective**.

## VIOLATION 6

The use of MVP materials and methodologies violates **Section C**, **Policy 3200**: “i) the price of the material weighed against its value and/or the need for it.”

WCPSS has spent over $1.4 million on the MVP materials and related costs to implement the use of the materials and associated delivery methodology. However, they are flawed with mathematical errors and gaps in mathematical knowledge, fail to provide students with a sound math education, and cause students to loathe math. The MVP materials are ***not*** worth the cost of math fundamentals not being learned in the classroom, weakening of the students’ ability to be college or workforce ready, and eradicating students’ interest in STEM careers.

## VIOLATION 7

The use of MVP materials and methodologies violates **WCPSS Board Policy 3135**; **Regulation Code 3135** R**&**P **Homework**.

**Regulation Code 3135** R**&**P **Homework Section II** states, “A. The teacher will introduce a concept or skill, thoroughly explain the concept or skill, and provide guided practice before making a related homework assignment.”

MVP materials and methodologies **do not** allow the teachers to thoroughly explain any concept or skill. Furthermore, MVP homework materials, *Ready, Set, Go*[12], require that the students have previous mathematical knowledge of modules or sections of modules that WCPSS students may have never even seen. This is due to WCPSS’ decision to piecemeal the MVP material together as they see fit. In doing so, WCPSS ignored the concept that Mr. Lemon (and fellow MVP authors) followed when writing the MVP materials. Per MVP, “Each module in the MVP educational program has been carefully designed and sequenced with rich mathematical tasks that have been formulated to generate and develop the mathematical concepts within the core. Careful attention has been placed upon the way mathematical knowledge emerges.”[13]

To counteract MVP’s design, WCPSS skipped entire modules, moved some Math 3 sections in a Math 2 module, and removed sections within a module, etc. (See EXHIBIT D: WCPSS Version of MVP). WCPSS states that the modules or sections were removed because they are not required by NC Standards. However, WCPSS did not

[12] “Ready, Set, Go” is the collective phrase used to describe the 3 main sections of each MVP lesson.
[13] https://www.mathematicsvisionproject.org/uploads/1/1/6/3/11636986/intro.pdf page 2

modify the *Ready, Set, Go* assignments to address these missing sections and in homework assignments students are asked to recall and use information that does not exist in the WCPSS MVP materials. This leaves teachers and students with an incomplete and confusing curriculum, which is unable to meet the student's right to a sound math education.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP does not support students' readiness to do homework.**

## VIOLATION 8

The use of MVP materials and methodologies violates **Regulation Code 3125-R&P Homework Section II**: "B. Homework assignments shall be specific, within the student's ability and have clearly defined expectations."

Due to the fundamentally flawed MVP materials and their guiding methodology (expecting students to analyze, apply, create, and design WITHOUT the math classroom experience that would provide each student with the foundational knowledge required to do those higher level activities), students lack the ability to complete the homework. This is yet another piece of MVP that causes some students to have high levels of anxiety and frustration, which leads them to have a lessened interest in math.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP homework assignments are often beyond a student's ability and lack clear expectations.**

## VIOLATION 9

The use of MVP materials and methodologies violates **Regulation Code 3125-R&P Homework Section III:** "B. To evaluate the effectiveness of a homework assignment, the following questions might be applied: 1. Does the student possess the skills needed to complete the assignment?"

Based on the previously-mentioned explanations of the violations of the **Regulation Code 3125-R&P Homework**, the students do not possess the skills needed to complete the *Ready, Set, Go* assignments. The fault lies with the MVP materials and methodology.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP does not provide a student the necessary skills to complete a homework assignment.**

## VIOLATION 10

The use of MVP materials and methodologies violates **Regulation Code 3125-R&P Homework Section III**: "D. Homework assignments will not require the use of books or materials which are not readily available in the home or accessible to the student."

Due to the fact that the flawed MVP materials cause so many students to have to self-teach or receive their sound math education outside of the WCPSS classroom, most (if not all) MVP homework requires multiple outside resources (access to the internet and tutors). This creates a ***glaring inequity*** as many WCPSS students do not have access to the internet or tutors.

The Mathematics Vision Project materials combined with the methodology chosen for implementation is causing students to be deprived of a fundamental mathematics foundation. The MVP materials and methodology flips Bloom's Taxonomy on its head and ask students to apply, create, analyze, and design BEFORE the students have the understanding or knowledge to do so. Furthermore, the MVP materials are rife with mathematical errors and gaps (see Exhibit C). The MVP materials and methodology are *incompatible* with a *sound* math education.

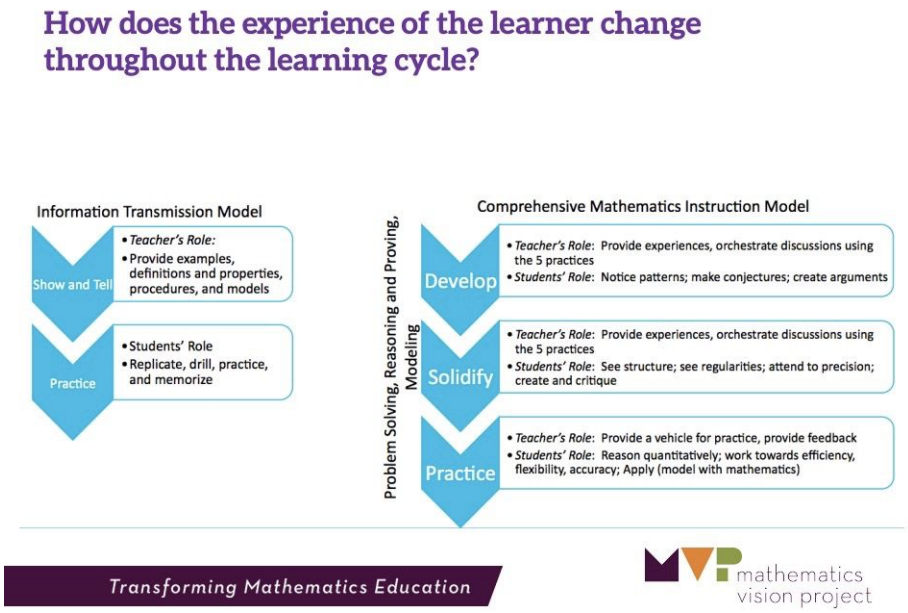
In consideration of the above-mentioned reasons, which include clear board policy violations and violations of each student's right to a sound math education, I ask for the immediate removal of all MVP materials and methods.

Based on testimonies from teachers at American Fork High School in Utah who teach former students of MVP founding owner and curriculum author Travis Lemon (See EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers) and testimonies from WCPSS teachers (See EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues), **MVP does not ready a student to do homework, therefore additional materials are needed.**

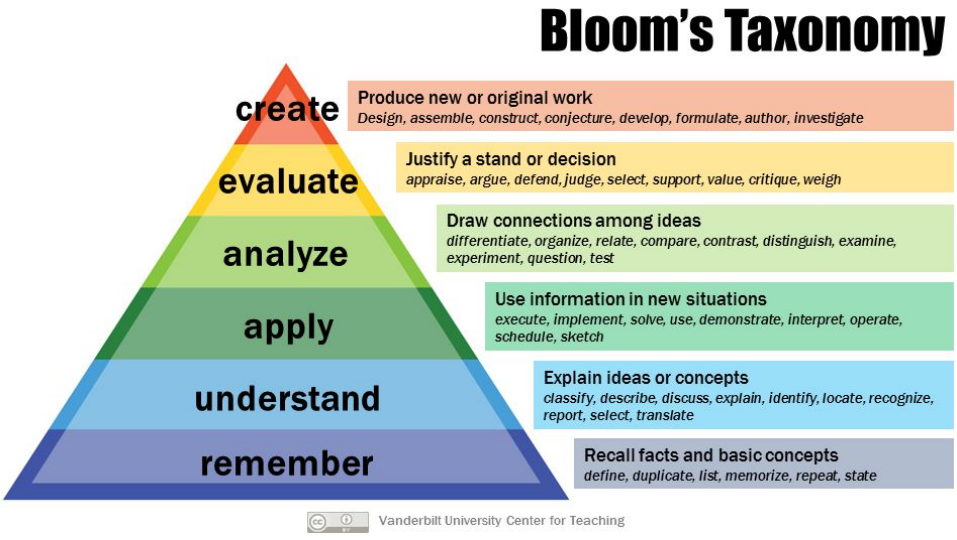
## SUMMARY

In summary, please note that according to **WCPSS Board Policy 3210** regarding material objections, "The superintendent shall develop the necessary administrative procedures to implement this policy." Feel free to reach out to Superintendent Cathy Moore if needed, and please let me know if you need any additional information.

# EXHIBIT A: MVP Math Education Transformation[14]




# EXHIBIT B: Bloom's Taxonomy[15]




[14] https://drive.google.com/open?id=1TmtcBaras8UA6Fc-AGk-k_FB-UWf7lj4
[15] https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/

# EXHIBIT C. MVP Errors and Evaluation

This feedback and examples were collected during a series of parent-initiated teacher and tutor surveys conducted in March, 2019.

## Overall

- There is lack of distinguishing content for Honors vs Academic students

## Math 1

### Comments from WCPSS Teachers

- We did most of the tasks but additionally supplemented/didn't do all Ready, Set, Go's as is. For example, teaching something like exponent laws for the first time these students need a LOT of practice on it, not the few questions they get in the RSG.
- I felt that it was very difficult to be absent from that class as I had to facilitate most of every single day in class. I did not find it as easy to just "hand over" the task to the students and have them come to these insightful conclusions that the mvp creators insist will happen.
- About a month before my school got to the quadratics unit WCPSS leaders realized that the MVP quadratics unit did not align with NC Math 1 and quickly wrote their own "mvp style" workbook and got it to us barely in time to teach the unit.

## Math 2

### Unit 1:  MVP Module 6

- P. 4 – While it states the triangles are right triangles, the right angles are not marked. Normally, we teach students not to make assumptions from drawings.  Students must assume the right angle in each case.
- P. 31 - #6 12 sided polygon – needs to state regular 12 sided polygon.
- P. 31 - #7, 8 – need to include the polygons are regular
- P. 27 – A regular pentagon, etc.  – where was “regular polygon” defined?

- P. 8 – “We might begin constructing a hexagon by noticing. . .decomposed into six congruent equilateral triangles. . . .” ONLY if the hexagon is regular.
- P. 8 #3 – “The six vertices of the hexagon. . . . “ Again – ONLY if regular.
- P. 31 #10 – There is not such thing as “Midpoint Theorem” – the correct answer is the definition of midpoint

## Additionally:

- P. 1 – again – using circles to do this construction – why not teach students to construct congruent segments? In Unit 1 and in this unit, there is an assumption of the definition of congruent segments while never defining what it means for two segments to be congruent.
- P. 3 - #3: The six vertices of the hexagon. . . .” Must be regular hexagon
- P. 3 – #4: The “discovery of the construction of perpendicular bisector is dependent on the corollary to the Perpendicular Bisector Theorem (If two points of a line are each equidistant from the endpoints of a segment, then the line containing them is the perpendicular bisector.
    - Students only know the definition of perpendicular bisector so it is unlikely they will discover the construction here except upon accident. Is it worth 20 minutes or more to let students experiment here when time on a block schedule is at a premium?
    - All the constructions are built around drawing circles – totally unnecessary.
    - No emphasis is given to the fact that only segments can have perpendicular bisectors.
- P. 4 – Construct angle bisector – how would they know how to do that construction? It’s actually an application of congruent triangles which they haven’t studied. More appropriately taught after congruent triangles. No emphasis is given to the fact that the angle bisector must be a ray.
- P. 7 – Constructing a parallelogram – only definition provided beforehand is opposite sides are parallel. Students have no idea how to construct parallel lines. There is no connections made between the construction and the fact that you get a parallelogram. Discovery often occurs with no basis for the discovery. Same issue with #6 on P. 11.

## Summary

There are so many gaps – particularly with vocabulary and with “discovery” that doesn’t answer the why it works question – MVP is weaker in the connecting of dots. Mathematical discovery is based on applying previous knowledge. The previous knowledge has not been established;

hence, the “discover” isn’t based on any mathematical knowledge, but rather it is based on accidental happenstance.

- Midpoint is used but never defined.
- Distinctions between bisect and bisect each other are not made.
- Other vocabulary that is used but not defined:
    - Concentric circles
    - Inscribed polygons
    - Circumscribed circle
    - Chord
    - Congruent polygons
    - Congruent angles
    - Angle bisector
    - Congruent segments
    - Definition of congruent triangles
    - Parts of an isosceles triangle
    - Postulate
    - Theorem
- Congruent triangles and proofs – superficial coverage – totally lacks any depth. Ex – questions such as these are never explored –
- Are two right isosceles triangles congruent by SAS?
- Why does AAS work in proving two triangles are congruent?
- Why does HL work in proving two triangles are congruent?
- The “proofs are extremely simple and require little.
- There are *no algebraic problems* requiring students to apply algebra to geometric problems (as appear in ACT and SAT). The algebra that is included is disjoint (Pages 12, 16, 24, 32, 33) from the geometry so the claim of integration is false. Additionally, there is no application of coordinate geometry (midpoint formula, distance formula) to apply in coordinate proofs for triangle congruence. Connections are missing and the “coverage is simplistic and lacks depth.”
- There is an overemphasis of transformational geometry at the sacrifice of Euclidean geometry.

## Unit 4: MVP Module 2

- Over emphasis on connecting areas of squares and rectangles to multiplying binomials and basic factoring.
- Gaps – Example: P. 8 - #19 – 24
- Little work has been done on radicals. For example, is = x + 4? Why/why not? When can a radical be split up? What are the properties of Radicals? Why are they true? What is not true? Ditto for P. 38 – Do students know that they can simplify radicals by

taking the square root of each term? Why won't that work? (higher level connections are missing) Is a + b? Why?/Why not?

- Clarity is lacking:
    - An intercept is a number – not an ordered pair (error – P. 52, intercepts are written as ordered pairs)
    - A minimum/a maximum is a number – not an ordered pair. In functions, the minimum/ maximum for a function is always the y value. For example, if the vertex is (-2, 4) for a parabola that open us, then 4 is the minimum value; it occurs when x is -2. Questions about the function are questions about the y values – not the x values.
    - Premature questions regarding the number of x intercepts a parabola can have – that should be tied to the number of solutions and the type of solutions a quadratic equation can have – haven't studied that yet. So while students can certainly state the three possibilities for the number of intercepts, it is not tied to any mathematical reason other than sketching parabolas.
    - Careful distinction between <u>expression</u> and <u>equation</u> is not made. For example, P. 14 – "Then write two equivalent equations for the area of the square." a – d are expressions; do they mean expressions?

- Vocabulary that isn't defined:
    - Domain
    - "completes the square"
    - Arithmetic means
    - Geometric means

- Error alert! P. 29: "identify whether or not each equation represents a quadratic function. Explain. . . ." NONE of them are functions – a function requires two variables either x, f(x) or x, y. These are quadratic equations in ONE variable or linear equations in one variable – not functions.

- An overall fixation on explicit vs. recursive functions appears in frequent units.
- Problems are made simpler by telling students what to do in the directions rather than expecting students to know what to do. Example – P. 37:
- Multiply: (Use the distributive property, write in standard form (punctuation error as well needed semi-colon rather than a comma). Why not say, "multiply. Students have had Distributive property for years; they should know it by now.
- Equation theory is missing – the number of variables tells you how many dimensions are needed for graphing.
- Whereas there are times gaps exist, there are also times, that too much is given away. Students can figure out how to multiply $(x - 3)(x^2 + 4x - 2)$ on their own. Why show them on P. 61. There is no rhyme or reason to what students can do on their own vs. "discovering."

- P. 62 – Pascal's Triangle/binomial Expansion – lots missing here that students can discover – the degree of every term is n; there are always n + 1 terms.

# Math 3

## Comments from WCPSS Teachers

- Math 3 needs all of the geometry workbooks redone. Those tasks are so confusing teachers can't follow them. I supplemented for all geometry in that class. Also inverse functions for math 3 needs to be its own stand alone unit and not with piecewise functions at all.
- We explored the lessons in Unit 1, which was on piecewise functions and inverses. It was pointed out by teachers that the MVP lessons did not bring up a discontinuous piecewise function. At first we were told that the unit was mostly on continuous piecewise functions and that it was based on the NC math standards. It was later pointed out by a teacher that discontinuous piecewise functions is in the NC Math 3 Standards, in the Math 3 unpacking document, and came up in the released NC Math 3 EOC questions. At this point we were told that discontinuous piecewise functions is in the "Ready, Set, Go" homework assignment. We looked, and it was in 3 questions on 1 homework assignment It is not in any of the lessons. The questions in the homework assignment are also not reflective of the question on the released EOC (question #14) or the sample questions in the Math 3 unpacking document (under standard NC.M3.F-IF.2). The MVP representatives came across as being mostly dismissive of our concerns, and responded by basically just saying to make sure you show it to your students then. It felt like many of us teachers were questioning why they would not change the MVP materials to include all of the aspects of the standards. Another person from WCPSS who was there said that revisions were still in progress and she was taking notes on the things that we were pointing out in the materials.
- Why did schools have the choice to implement MVP in Math 3 this year if it was not written to be completely aligned, especially in the first year as Math 3 having an EOC test? From what I understand, around half of WCPSS schools chose to implement. Mine did not because we were not convinced the materials would be aligned to the EOC, and now I can see that we were right to be concerned about that?

# EXHIBIT D: WCPSS Version of MVP

## Summary of Units by Course 2018-19

### Math 1

| **Unit** | **MVP Module** | **WCPSS Changes to Tasks*** |
|---|---|---|
| Unit 1: Sequences | MVP Secondary Math 1 Module 1 Sequences | None |
| Unit 2: Linear and Exponential Functions | MVP Secondary Math 1 Module 2 Linear & Exponential Functions | Created tasks:<br>● 2.0 Do You Have the Power?<br>● 2.6b Up a Little, Down a Little<br>● 2.6c What Makes a Population Change? |
| Unit 3: Features of Functions | MVP Secondary Math 1 Module 3 Features of Functions | None |
| Unit 4: Solving Equations and Inequalities | MVP Secondary Math 1 Module 4 Solving Equations and Inequalities | Task 4.3 rewritten to include literal equations |
| Unit 5: Connecting Algebra and Geometry | | WCPSS created unit incorporating tasks 8.1 Go the Distance and 8.3 Prove It! from MVP Secondary Math 1 Module 8 Connecting Algebra & Geometry |
| Unit 6: Systems of Equations and Inequalities | MVP Secondary Math 1 Module 5 Systems of Equations and Inequalities | |
| Unit 7: Quadratic Functions Part 1 | | WCPSS created unit |
| Unit 8: Quadratic Functions Part 2 | | WCPSS created unit using area model ideas from MVP Secondary Math 2 Module 2 Structures of Expressions |

| | | |
|---|---|---|
| Unit 9: Modeling with Data | MVP Secondary Math 1 Module 9 Modeling Data | |

*Additional tasks and units were created in collaboration with Chapel Hill-Carrboro City Schools.

## Math 2

| **Unit** | **MVP Module** | **WCPSS Changes to Tasks*** |
|---|---|---|
| Unit 1: Transformations and Symmetry | MVP Secondary Math 1 Module 6 Transformations and Symmetry | Removed Task 6.2 |
| Unit 2: Congruence, Constructions, and Proof | MVP Secondary Math 1 Module 7 Congruence, Constructions, and Proof | Removed Task 7.6 |
| Unit 3: Quadratic Functions | MVP Secondary Math 2 Module 1 Quadratic Functions | None |
| Unit 4: Structures of Expressions | MVP Secondary Math 2 Module 2 Structures of Expressions and Tasks 3.3 It All Adds Up and 3.4 Pascal's Pride from MVP Secondary Math 3 Module 3 Polynomial Functions | None |
| Unit 5: Solving Quadratics and Other Equations | MVP Secondary Math 2 Module 3 Solving Quadratics and Other Equations | Removed page on arithmetic of polynomials in Task 3.10 |
| Unit 6: Square Root and Inverse Variation Functions | | WCPSS created unit |
| Unit 7: Geometric Figures | MVP Secondary Math 2 Module 5 Geometric Figures | Removed tasks 5.7-5.9 |
| Unit 8: Similarity and Right Triangle Trigonometry | MVP Secondary Math 2 Module 6 Similarity and Right Triangle Trigonometry and MVP Secondary Math 3 Module 5 Modeling with Geometry Task 5.5 Special Rights | Removed task 6.9 |
| Unit 9: Probability | MVP Secondary Math 2 Module 9 Probability and | Added Illustrative Math task False Positive Test Results |

| | | |
|---|---|---|
| | MVP Secondary Math 3 Module 9 Statistics Task 9.7 Slacker's Simulation | |

*Additional tasks and units were created in collaboration with Chapel Hill-Carrboro City Schools

## Math 3

| **Unit** | **MVP Module** | **WCPSS Changes to Tasks*** |
|---|---|---|
| Unit 1: More Functions, More Features | MVP Secondary Math 2 Module 4 More Functions, More Features | None |
| Unit 2: Functions and Their Inverses | MVP Secondary Math 3 Module 1 Functions and Their Inverses | None |
| Unit 3: Exponential Functions | MVP Secondary Math 3 Module 2 Logarithmic Functions | Modified Task 2.2 Falling Off a Log; removed tasks 2.3 and 2.4; created Task 2.5b Bacteria Gone Wild!; created Compound Interest Introduction; created Tasks 2.6b Falling Apart, 2.6c Twice as Nice/Half as Much, and 2.8 Sanitize It! |
| Unit 4: Polynomial Functions | MVP Secondary Math 3 Module 3 Polynomial Functions | Removed Tasks 3.3 and 3.4 |
| Unit 5: Rational Functions | MVP Secondary Math 3 Module 4 Rational Expressions & Functions | None |
| Unit 6: Geometric Figures | MVP Secondary Math 2 Module 5 Geometric Figures Tasks 5.7-5.9 and MVP Secondary Math 2 Module 8 Circles and Other Conics Tasks 8.1-8.3 | Modified Taks 5.9 to include geogebra activity |

| | | |
|---|---|---|
| Unit 7: Circles | MVP Secondary Math 2 Module 7 Circles: A Geometric Perspective | Rewrote Task 7.1 Irrigation Situation; removed Tasks 7.4 and 7.5; created Task 7.3b Segment Lengths in Circles |
| Unit 8: Modeling with Geometry | MVP Secondary Math 5 Modeling with Geometry Tasks 5.1-5.4 | None |
| Unit 9: Trigonometric Functions | MVP Secondary Math 3 Modeling Periodic Behavior Tasks 6.1-6.10 | None |
| Unit 10: Statistics | MVP Secondary Math 3 Module 9 Tasks 9.5 and 9.6 | Added Fred's Flare Formula, Distracted Driving and Misleading Statistics Tasks |

*Additional tasks and units were created in collaboration with Chapel Hill-Carrboro City Schools

# EXHIBIT E: Conversations / Interactions with American Fork High School Math Teachers

MVP founding owner and curriculum author Travis Lemon is arguably the most knowledgeable and expert at MVP implementation of any one in the world. This program is his creation, and he implements it in his classrooms. He is a math teacher at American Fork Junior High School in American Fork, Utah. American Fork Junior High students feed into American Fork High School.

Confidential email exchanges and/or conversations were conducted with several math teachers at American Fork High School, where students from the junior high are sent. Their names are withheld to protect confidentiality.

## Emails

Teachers at American Fork High School were asked about MVP and Travis Lemon's RateMyTeacher ratings which indicated he was a teacher at the high school:

1. Was he ever a teacher at your high school as RMT indicates?
2. Does your high school use MVP?
3. Do you use it strictly or do you supplement it as some of our teachers do?

The following responses were received:

**TEACHER A**

1. As far as I know, he has not ever taught at the high school with us. I have been at AFHS for 7 years and he's not ever taught here since I've been here. I know him briefly from district math meetings. He has taught at the junior high since I've been here.
2. Also as far as I know, we do not use MVP at the high school. I am not on our Secondary Math 2 team, so maybe they've used some of the tasks, but for sure as a whole department, we do not use it.
3. I guess I already kind of answered, but if it is used at all, it is just a task here and there. From my brief interactions with it, we as a department saw many issues with it and haven't ever pushed for it at our school.

We are on spring break this week, so I'm not sure if other teachers on our team will have time to respond, but that is my knowledge of it.

**TEACHER B**

1. He has only been a teacher at American Fork Junior High, never at the high school
2. We do not use MVP. If we do, we use it sporadically, maybe once or twice each term
3. We use our own curriculum and some teachers choose to insert an MVP lesson or two into our curriculum where they see necessary but it is not common

**TEACHER C**

No, No, and No.

**TEACHER D**

I find a major problem with his method. I teach xxxxxxxxx at the high school. Most students from his classes don't remember anything from his class. Their retention of the material is awful. He does all these activities hoping they will get the connection to the math on their own. He never actually talks to them about what they are doing. Most of my students that I have of his don't like how he teaches. They feel like they were cheated of a good education. I think it is funny that his program is so big when his students aren't really learning anything. Once again please keep this confidential. I just want to do what is best for the students. And his program is not what is best.

**TEACHER E**

Travis Lemon actually teaches at American Fork Junior High School. His email is xxxxxxxxxxxxxx.

I personally use MVP very little. At the high school level, I find tasks are a great tool for discovering some concepts, supplementing others, and some just require old fashioned direct instruction. As a department at our high school, we are working to incorporate more tasks because most of us teachers use primarily direct instruction, and we feel that tasks could deepen understanding.

I hope this helps a little. I'm sorry you're having issues with the project. I hope you're able to get things resolved quickly.

## Phone Call

A phone call with TEACHER D was conducted on April 8, 2019, Here are the notes and quotes:

- **Did your school adopt MVP?** "No - Not all all. Not a single one of us."
- **5 teachers wrote me back.** "That's because we're so sick of him. We're sick of hearing how he is so amazing, yet his program is NOT working. At all."
- "I think he thinks his kids are doing so good at the moment. They might be. But their retention SUCKS. It is awful. I ask them."
- "When I do direct teaching, the one thing they (students) learn very well is systems of equations. Substitution, elimination, graphing. That kind of stuff. If you ask them to do it they will do it in 2 seconds. DT - never been a problem. Never had a problem. But never problems with systems of equations. I ask a kid that comes from Lemon how a system of equation works and they say they've never seen it before."
- "And I know he teaches it. He does real life situations and he makes them figure it out themselves. And by figuring it out themselves they never figure out the actual process. They may figure out their own way of doing things, and then he never ever ever brings it BACK to the actual math - 'THIS is what you did.' Ever. And it drives me nuts."
- "He does all these wonderful fun tasks but then never puts it back to the math. Never looks and processes it. Never has them drill and figure how to actually do it. How the processes work."
- "I love how these programs are trying to teach kids how to do long division other ways. But in the long run. You need to learn LONG DIVISION. All these other ways and love the fact that everyone wants to teach the kids where its coming from and not just the process - which I am totally a fan of - but I hate that they won't teach the actual original process because when you get into polynomials, you have to have long division. All these other tricks won't work. I feel like he's teaching all these weird hippie dippie ways of doing things."
- **Situation in WCPSS was explained, deploying MVP to hundreds of teachers.** "Number one: it is not him teaching it. Him teaching it is already confusing enough. I can't even imagine someone who didn't create it trying to do this."

- “The training they doing is to actually do the program because it is soooooo confusing. I looked at it, and I’m like ‘NOPE’.”
- “I love tasks and I think tasks are great - as long as they teach it better than lecture. And if lecture is going to be the best way to teach, you teach a lecture. You don’t do everything lecture and everything tasks. You have to have a nice balance. That sounds like how your MVP Lite teachers have it right.”
- “Every teacher teaches the best way they know how and they get different kids. We are all different, and people like it. That’s why it (teachers being able to teach the best way that words for them and student) works.”
- “We had a teacher student teach with him. And she said the kids had no clue what was going on.”
- “I’ve had many many many many students tell me that they had no clue what he was talking about but they got the A anyway. That’s the other thing. He gives all A’s out. Doesn’t matter what they learn, they still get the A. That’s how he makes it so parents don’t get pissed off at him. They all think they’re doing so well that they don’t worry about it.”
- “American Fork Junior High students all feed to American Fork High. Half of one other junior high feeds also. So about ⅔ of kids at high school are from AFJS.”
- “Lemon and one other teacher are the only ones who use it at his school.”
- “Other kids from his school do OK. He is the only one who does it 100% this way. The other ones (teachers) probably dial it back. ‘Otherwise I’m not really teaching’”
- “Lemon is the only one - and their retention is not good.”
- “From what I’ve seen 80% of his kids don’t have good retention. The other 20% are the kids who are going to do well no matter what. Most of them said, ‘We loved it when we went back to lecture based’ because they could finally understand things and practice things and they had homework”
- “That’s the problem, he has all these wonderful beautiful tasks and he says OK do this homework and they didn’t even understand the task and the homework had nothing - well they think - it has nothing to do with what they did in class, but it does but he never brings it back.”
- “The workbooks suck. The workbooks give them all work but they don’t explain it works. Parents don’t have ANY materials to go off of. To help out. Because they’re doing tasks and not taking notes.”
- “Khan Academy is amazing, but you have to know what you’re searching for. Once you know what you’re searching for he’s amazing. But he’s completely lecture based. It’s kind of funny that you’re resorting to someone who goes completely lecture.”
- “They don’t remember very simple things because they were spending the whole time trying to discover them, which is great, but then he never brings it back to the simple process of what is going on.”
- “I prove everything, probably to a fault. But in order to prove it - you cannot have a kid to try and prove something and discover something that took 1000’s of years to discover. That’s what I don’t get. If you teach it to them directly, they can get it.”

- **Asked about thoughts about our block scheduling.** “You’re missing math for a whole year…”
- “I think that teaching fundamentals and the reason why has to happen together. I teach where it’s coming from and the fundamentals all at once. Together. This is why we’re doing this. This is how you do it. And this is how it works. All at once. All mixed in.”
- “I have to remediate a lot of his kids and it is getting really annoying.”
- “No one in our district is forced to teach like this. Anybody who’s forced to do it, is screwed up. Because that is not the way teachers should be. Teachers should have the freedom to teach the best way that THEY know how to teach.”
- “It’s not good enough for our district to adopt. It works good for him. Let him do it. When we are forced to do something we cannot do what’s best for the students.”

# EXHIBIT F: Testimonies from WCPSS Teachers About MVP Issues

Over 400 WCPSS teachers were invited via a parent-initiated survey to give feedback about MVP. This list organizes those responses by category.

## Category: MVP Training

- The trainers (the authors of the MVP materials) would get defensive anytime we brought up our frustrations with the curriculum. They wouldn't help us problem solve through our frustrations.
- One teacher questioned the MVP trainers as to what they recommend if we find that a particular lesson or task is just not working in our classroom. The trainer actually laughed and said that they all work, and she knows that because she helped write them. She essentially implied that if a lesson did not work, it was because we as the teachers were not implementing them correctly.
- The professional development training for it was a joke! I saw multiple times when the writers couldn't figure out what a paragraph meant or was asking.
- I am a WCPSS Math 3 teacher, and I attended part of the MVP Math 3 training. My high school did not implement MVP for Math 3 this year. By the end of the training, I was so happy we did not.
- They (MVP trainers) never explained what the purpose of MVP is.
- Half of the time I feel like they are trying to sell me on it. We are given time to work the tasks and act like the students and we all come up with different styles so the leaders can show how we would bring up students based on a variety of work in the classroom, however unless I guided my students they rarely had this variety of methods for me to use as examples.
- Not to mention at the school level we are given very little time to work on this other than weekly PLT considering that we are teaching a course that is basically brand new
- Having also taught MVP Math 1, I will say that the Math 1 materials are much better than the Math 2 materials. The trainings I've been to (both for Math 1 and Math 2) were by no means the best trainings I've ever been to.
- I wrote an email to one of my superiors about how our PLT was implementing MVP several months ago. I got no response from my superior or my department chair about my email.
- MVP treats us like students in the training. It's such a waste of time!
- MVP training is useless.
- The MVP representatives came across as being mostly dismissive of our concerns.

## Category: MVP Materials Quality

- There are a lot of things that don't align to standards. What sense does it make that honors and foundations are taught using the same book?
- Math 3 needs all of the geometry workbooks redone. Those tasks are so confusing teachers can't follow them. I supplemented for all geometry in that class. Also inverse functions for math 3 needs to be its own stand alone unit and not with piecewise functions at all.
- I find the materials extremely difficult to use with an academic Math 2 class.
- The materials this curriculum provides are not sufficient for students, particularly academic level students, to adequately learn the material.
- Teachers are often left to search the internet or use previous (pre-MVP) course materials to find some student success.
- Why did schools have the choice to implement MVP in Math 3 this year if it was not written to be completely aligned, especially in the first year as Math 3 having an EOC test? From what I understand, around half of WCPSS schools chose to implement. Mine did not because we were not convinced the materials would be aligned to the EOC, and now I can see that we were right to be concerned about that?
- Parents are oblivious about how bad the math is.
- The curriculum wasn't vetted in the slightest before the county decided to use it
- I spent three weeks in the summer trying to print and get a grasp on this curriculum to no avail. The math 2 curriculum was not finished, not correct, not completely uploaded and missing so much I could not prepare myself, as a good teacher would. I tried to take the initiative and get a grasp and practice over the summer so I could feel competent and knowledgeable, but my resources were not available.
- It is my understanding that Honors level and regular level math students are using the same materials. So what is the difference between the 2 classes?
- About a month before my school got to the quadratics unit WCPSS leaders realized that the MVP quadratics unit did not align with NC Math 1 and quickly wrote their own "mvp style" workbook and got it to us barely in time to teach the unit. Many booklets were not delivered until immediately before we needed to begin teaching it. I
- MVP was built to spiral for a different state and different curriculum. Wake County purchased it as a cure-all and REQUIRED all of their teachers to use it. The organization of unit does not flow and there is CONSTANTLY material in the books that is not in the correct placement for the class.
- The books are the SAME for honors and regular level classes which makes no sense.
- My biggest problem with the MVP Math 2 curriculum is that most of it doesn't align to the standards we are supposed to be teaching (a lot of the content from the work books covers standards from Math 1 or Math 3- not Math 2).
- MVP vs Glenco or Holt (traditional publisher)

    - Daily Objectives no yes
    - Warm Ups no yes
    - Guided Practice no yes
    - Answer Keys no yes
    - Daily Quizzes no yes
    - Alternative Assessments no yes
    - Tests no yes
    - Colored Graphics no yes
    - Typos many few
    - Math Errors some little to none
    - ESL Resources no yes
    - Literacy Resources no yes
    - Computer Programming no yes
    - SAT/ACT Prep no yes
    - IEP Resources no yes
    - Test Bank to make tests no yes"
- I have to guide them through the materials and create notes to go along with them for the students to get anything out of it.
- We explored the lessons in Unit 1, which was on piecewise functions and inverses. It was pointed out by teachers that the MVP lessons did not bring up a discontinuous piecewise function. At first we were told that the unit was mostly on continuous piecewise functions and that it was based on the NC math standards. It was later pointed out by a teacher that discontinuous piecewise functions is in the NC Math 3 Standards, in the Math 3 unpacking document, and came up in the released NC Math 3 EOC questions. At this point we were told that discontinuous piecewise functions is in the "Ready, Set, Go" homework assignment. We looked, and it was in 3 questions on 1 homework assignment It is not in any of the lessons. The questions in the homework assignment are also not reflective of the question on the released EOC (question #14) or the sample questions in the Math 3 unpacking document (under standard NC.M3.F-IF.2). The MVP representatives came across as being mostly dismissive of our concerns, and responded by basically just saying to make sure you show it to your students then. It felt like many of us teachers were questioning why they would not change the MVP materials to include all of the aspects of the standards. Another person from WCPSS who was there said that revisions were still in progress and she was taking notes on the things that we were pointing out in the materials.
- How well aligned is Math 1 and Math 2, given that Math 3 is not? We only looked at one unit in training, but based on skimming through the other Math 3 materials, there are other pieces of content missing from the MVP materials.
- My question is if the material is so great then even if teachers had a choice they would use this curriculum

- We are not given the tools we are needed to implement this correctly. Could it be good? Maybe but not with the rush/lack of preparation that I feel that we are given to implement it.
- Additionally, since NC standards do not align with Colorado (where this came from) they have to pick and choose units from the 3 different courses to compile ours, and like I mentioned before, create new materials for WCPSS to match our quadratics standards. If it is supposed to be done exactly as MVP is written, how can we do that when our courses don't even align with theirs?
- I am not convinced that MVP covers everything necessary to be prepared for the NCFE -- thus, the need for supplementary materials, extra time, etc.
- I taught MVP Math 1 last year and it was wonderful! Everything worked well and students could actually understand the material. This year, I moved to MVP Math 2 and the material is a different story. The Ready Set Go homework is great, but the activities need more assistance.
- I create my own quizzes and tests, occasionally using some of the problems from the MVP test bank.

## Category: Adoption Adherence

- At this point we are being told from our assistant principal that even supplementing before hand isn't being "true to the curriculum". So we are told to use the books no matter the outcome.
- The schools with no problems just aren't using the curriculum
- The teachers that I observe using the curriculum faithfully are far behind the needed pacing for the NCFE.
- I have used it more than any other teacher in my PLT; all other teachers have gone off independently to teach the course standards and only use the workbooks as supplemental material. As a result, my students are behind other classes at our school.
- I supplement the materials almost on a daily basis. I have tried using the activities/lessons in the MVP manual without doing so, and my students just simply don't respond. I have a few that will complete the lessons, but many will sit there and not lift a pencil.
- I just do what I want. I use the old school math books because the MVP quadratics books are so terrible. This (MVP) is ridiculous. That's why my kids are doing great.
- I know for a fact not all schools are using this, as their principals support the knowledge and professional direction of their teachers.
- I taught MVP Math 1 the first year my school implemented it. It was exhausting and stressful. My assistant principal "over" the math department at the time insisted that we implement it exactly as it is supposed to be. Luckily, my department chair was teaching it with me and disagreed. We did most of the tasks but additionally supplemented/didn't do all Ready, Set, Go's as is.
- Teachers are having to supplement most of the material to meet the standards. A lot of the standards are touched, but not in depth. When teachers have to supplement majority of the time plus do MVP, we are creating double the workload and it's getting exhausting.

- I feel like I am being judged for my commitment to the program and for pointing out that no one else is working closely with MVP.
- WCPSS doesn't know what we are doing (what we are teaching).
- I have reached out to superiors to find out how "mandatory" the curriculum is.
- I would bet only 20% of the teachers are using it as designed with no supplement
- I am doing what'd best for my students by using MVP as supplemental.
- I enjoy having a textbook for the curriculum. There are some lessons that I skipped because I did not see how it would be beneficial to my students when numbers got involved.
- Needs supplementation but engaging and fun. Needs a quality teacher to deliver it.
- The Math 1 & 2 teachers at XXXXXXXX High have adjusted to MVP without a ton of back lash. One of the teachers told me there was not much change in students' final grades from traditional to MVP. I think some students like it and some do not. The teacher has a lot to do with this as well. Also, they are still supplementing a lot in addition to using MVP.

## Category: About Students

- Gone is the flexibility of taking an extra day because the kids just don't get it. Gone is the flexibility of doing a fun activity to reinforce a concept. Gone is my control over what I think is needed and necessary in my classroom.
- I am a firm believer that practice makes perfect. MVP does not provide practice.
- teaching something like exponent laws for the first time these students need a LOT of practice on it, not the few questions they get in the RSG.
- MVP uses the premise that if students DISCOVER the relationships involved in math, they are more likely to retain it. While this is true, it is a question of the amount of time that is involved. By the time students have gone through the workbook materials and struggled to discover the needed relationships, there is little or no time for reinforcement. No time for practice.
- We are seeing that students are woefully unprepared for the rigor of Precalculus and AP Calculus, having come through Common Core mathematics, and the MVP program is only going to exacerbate this problem.
- My kids are lost with MVP.
- My kids are in private schools. Most parents have no clue the kind of crap they are teaching at schools here.
- I think it's a crime what they are doing to these kids.
- What happens when our students are so soured on math due to MVP that they lose interest in studying advanced math? How will WCPSS look compared to other school districts if we are no longer able to offer AP Calculus due to lack of student interest in taking the course?
- There also isn't enough practice. Very minimal practice that I must supplement.
- The expectation is too high for some students and most students just waste the entire class trying to learn.

- How well are the students being prepared for the next level of math? Are they truly learning the needed skills through the MVP curriculum? Will these students have solid enough skills to be prepared for the rigors of Precalculus and AP Calculus? If a student does not understand factoring or completing the square, I don't know how I will be able to teach them the four conic sections. If a student does not truly understand right triangle trigonometry, I don't know how I will be able to teach them the Laws of Sines and Cosines, vectors, and polar equations.
- In Precalculus, a teacher depends on the students to have solid algebra skills that are used in advanced problems. Are we truly preparing our students for advanced math? Are they really learning the skills they need to be learning in math? What happens when our students are so soured on math due to MVP that they lose interest in studying advanced math? Will we have enough students to be able to offer them AP Calculus in high school? How will WCPSS look compared to other school districts if we are no longer able to offer AP Calculus due to lack of student interest in taking the course?
- I did tutor one student last semester in H Math 3. She came to me kind of late in the semester, but as far as I could tell, she was pretty smart. Her grades were not reflective of this, mainly because of how the course was being taught. I told her not to take pre-cal because I did not think she was ready for it. (I recommended taking AFM first)
- My kids couldn't do that (MVP)!
- I just feel so bad for the kids.
- These kids are not getting what they need.
- They (students) don't need me to ask them more questions.
- I felt that it was very difficult to be absent from that class as I had to facilitate most of every single day in class. I did not find it as easy to just "hand over" the task to the students and have them come to these insightful conclusions that the mvp creators insist will happen. We then had to be absent for additional training days as this was just coming to fruition in wcpss.
- I am nervous for the Math 3 implementation next year. Since we changed to common core my coworkers and I have been busting our butts to perfect our current Honors Math 3 course, and I feel like the students are learning a lot, prepared for Precalculus and beyond, etc. I do not feel confident that MVP will do that for them.
- I am sure MVP is nice for teachers who do not think and don't care what their students learn. However, those of us who work hard to make sure students are learning the appropriate material this has been a waste of time and money.
- Additionally, in the event of a substitute I cannot use review pages from a book but instead have to the students work on an investigation without a math teacher.
- Our school chose not to pilot math 3 this year for that reason... students who start math 3 next year will have only known MVP for Math 1 and Math 2, so MVP for Math 3 won't be quite the shock as it is now... I see the kids that are honor students struggle... so I explain the task and how the skill ties in. Then I usually go over skipped questions or tasks and then I give them the rule (because I'm their tutor, not teacher- different job description).

- This curriculum is helping our students find their deficits by actual testing their ability to understand, apply and "do" math. This allows our students to actually know their skill level and improve it to succeed  in later mathematics classes and logical based problem solving for the rest of their lives.
- Some may see math as a memorization of a bunch of rules and procedures, however anyone who knows what math really is knows this is not true.
- There's an appropriate time and place for algorithms and discovery.  Yes, it has to be a COMPLETE LEARNING CYCLE... but the reality is there are teachers who are skipping tasks or part of tasks that they feel are unnecessary (the lack of trust part), without realizing that it's needed for the understanding... it's usually a link between the task and the "skill" of the task...
- I realize I teach math 1 and not honors or high achieving students... but I do tutor them... in my most humble opinion, high achieving students are great at following directions! There's nothing wrong with that... they like rules! You give them the rules and they'll follow them... MVP doesn't give the rules, they're discovering the rules and then applying them... that's a huge and painful shift for our high achievers as well.
- In my classroom, we use the tasks and I make sure we debrief before we leave class... if we don't, they can't do the HW... no system is perfect, I realize that...  but it's super interesting to watch these student flourish, and even better, to watch honors kids come up with stuff on their own instead of "following a given rule". Do I think it all comes down to the teacher... more than not... but I don't know a remedy or even that there is one

## Category: Equity

- The material is not good for students who don't speak English because of so many words.
- MVP does not address needs of honors students or lower achieving students with learning disabilities or language barriers.
- I feel like this material is incredibly frustrating for my students who don't speak english, and for my students who struggle with reading.
- Asking lower level students to stay engaged in a math discussion while doing word problems and not directly teaching them how to answer the problems frustrates my students.  They shut down and give up. I have to do a lot of supplemental instruction just to get them to understand the concept.
- It fails to meet students where they are and it caused a lot of frustration among a lot of my students and did not leave a lot of room to experience true success.
- A lot of the students in my Math I class experience fatigue or inability to do the problems due to language barriers or lower reading levels.
- My standard level students do not have the math skills to work at an abstract level, nor are they willing to engage in the discourse that is necessary to make problem-based learning work at this level in the classroom.

- It’s criminal. There is no vertical alignment.  I don’t even know what these lower level kids are going to do.
- I don’t think one size fits all in education. That’s what mvp is.
- I also have to frontload knowledge due to my classes being inclusion. When I taught honors I didn’t have to do that as much. When in inclusion they are completely lost with prior knowledge. They also have a hard time reading the overly involved tasks.
- I am reaching bc I am absolutely miserable and at this point feel I have nothing to lose. “The experts” tell us that MVP supports all types of learning capabilities for our students which is one of the many reasons for adopting it. Yet this curriculum is doing exactly what they claim they are “trying to prevent”, pigeonholing students in to task based learning. At best, mvp should be used as a resource.
- Children with differing styles and abilities seem to be affected the most by this
- I now teach foundations (yearlong) and honors. We are giving the same curriculum to the same students and that's doing a disservice to both classes.
- MVP is not sequenced like a traditional book.  All Glencoe or Holt textbooks start with a Chapter 1 and then increase in order (Chapter 1, Chapter 2, Chapter 3 and so on).  MVP does not have chapters but has modules.  The modules are not all printed in the same typeset or layout.  Furthermore, the modules are not in sequential order.  There are not colored graphics whatsoever and the font is very small even with my glasses.  If a student was visually impaired I do not think this print would be acceptable.
- I think that the MVP curriculum is best suited for middle grades students taking Math I due to its pacing.

## Category: Teacher Satisfaction / Dissatisfaction with MVP

- In addition, the year before MVP was adopted, the teachers were asked for input on 2 different SUPPLEMENTAL packages. We were all under the impression that this MVP crap was to be used for supplemental purposes. When we returned to school in August we were told it was a mandatory curriculum. This is not fair and this is not a very trustworthy move from central office.
- My understanding is that MVP is on a 3-year contract with WCPSS (currently in Year Two), and I am hoping and praying that they choose NOT to renew. In the mean time, I cringe at next year's roll-out of the MVP materials for Math 3.
- This curriculum takes away my creativity as a teacher.
- After leaving the training, I am seriously considering looking for a math teaching position outside of WCPSS, just to get away from MVP.  While it has aspects that I like, I am not convinced that a strict following of the MVP curriculum (as I was given the impression was expected - no deviating allowed) is in the best interests of my students.
- When I go to county meetings for math 2 so many of the teachers are fed up with the material

- I almost threw up every time I heard the county say, in that parent meeting, how they are supporting the teachers.
- As a veteran teacher of 20 plus years, I know feel less competent than I did my first year teaching.
- Other school teachers may not reply bc they have their administrators support to not use this but they are keeping that top secret or hush hush from the county office.
- The school that I am at had respectable, high test scores. We did not need to revamp anything. Why are we being punished for teaching Math 1,2,3 well?
- I, and many of my colleagues, do not feel as if we can comment using our names and school.
- I am very much against the MVP approach for teaching math. Several reasons:
- BLOCK SCHEDULING! Students can be away from math for a whole year
- Not enough time for students to discover concepts and be assessed appropriately
- I spent well over 400 hours in the last 2 years creating packets for each unit since we do not have a textbook and I do NOT want to recreate the wheel yet again.
- I have made hundreds of videos, answer keys, quizzes, group quizzes, online assessments, and Tests that directly fit my teaching style.
- I have had a ton of success with my students and have seen their growth in math.
- Students have a lot of gaps in math. (Math 1 &2 seems to be easier than Math 3)"
- At XXXXXXXX High we opted NOT to do the MVP for Math 3 this year. Now, we are being forced to do it next year. I am absolutely against it and I am not sure what I am going to do about it. I am very thankful you have taken action to voice the reality MVP teaching.
- Do not mess with the WCPSS math chair!
- I would want to know exactly who chose the curriculum.
- We are now the subjects of scrutiny bc our parents will speak up, and rightfully so. Until the MVP meeting with the parents in our library occurred, I had never witnessed a single county office personnel in our school to “support” the MVP teachers.
- My personal feeling is there was a lull in leadership when decisions had to be made about this curriculum and thus the person who made the decision to buy MVP is trying to save face because they bought it and it is bad. They are full support at the county office because God forbid they admit they made a mistake with this purchase.
- My school will be adopting MVP Math 3 next year. I am not very happy about it. I have over 25 years of experience teaching HS Math, and now the county is going to tell me exactly what I need to say & do in my classroom.
- I was hired by WCPSS to teach my students the state math curriculum. I do not feel as though MVP will allow me or help me to do my job adequately.
- I am hesitant to say much to my superiors, please know that the teachers do appreciate all of the hard work this parent group is putting in. We have not enjoyed implementing MVP and are frustrated but to a certain extent our hands are tied. Some administrators are more willing to budge than others, some are more open to hearing input than others.

- Math is not a conceptual thing. You need to learn the foundations before you can apply it.